

REMARKS

Claims 12-35 are active in this application. Support for these claims is found in Claims 4-9 and the specification on page 16. No new matter is added by these amendments. Favorable reconsideration and allowance of all pending claims is requested.

Applicants are submitting herewith a certified English translation of the Japanese priority application 2000-35454, which was filed on February 14, 2002, to obtain benefit of this priority application. Since each of Kojima et al. (published May 2000), Steffensen et al. (published June 2000) and Liu et al. (published April 2000) were published after this priority date, Applicants respectfully request withdrawal of the rejection under 35 U.S.C. § 102(a) over these cited references.

To the rejection of Claim 4-6 under 35 U.S.C. § 102(a) over Kojima et al (Reference AE-*Seikagaku* 1999 71(8):704), the named Inventors of this application are submitting an executed Declaration under 37 C.F.R. § 1.132. This Inventors' state that they are the inventors of the subject matter claimed in this application and Yasuo Suzuki, one of the coauthors of the *Seikagaku* publication was merely providing experimental materials. Therefore, the *Seikagaku* is not a publication by another and as such withdrawal of this ground of rejection is requested.

Turning to the rejection of Claims 4-6 over McClaren (GenBank entry z82176), McClaren does not describe an isolated DNA consisting essentially of all SEQ ID NO: 1 (as in Claim 12); or an isolated DNA, which hybridizes under stringent conditions to the complement of SEQ ID NO: 1, which is about 1975 nucleotides in length (as in Claim 13). Absent such a description, the present claims are not anticipated by the McClaren publication. Withdrawal of this ground of rejection is requested.

The rejection of Claims 4-6 under 35 U.S.C. § 103(a) over Taniguchi et al. is obviated by the cancellation of Claims 4-6.

Claims 12-35 are not obvious in view of the Taniguchi et al. disclosure for the following reasons. A disclosure of a protein, an amino acid sequence, or a partial amino acid sequence in light of common methods for isolating and producing DNA encoding a protein does not render a claim to a DNA sequence, which encodes that protein, obvious unless the references relied upon provide a specific teaching for the structure of the DNA claimed (see *In re Bell* (26 USPQ 2d1529 (Fed. Cir. 1993) and *In re Deuel* (24 USPQ 2d1210 (Fed. Cir. 1995) both of which are attached). Since Taniguchi et al. only describe the purification and functional properties of a particular enzyme there is no suggestion from the teachings of this reference for the DNA as claimed in this application.

In addition, the enzyme described in Taniguchi et al. is different than the enzyme encoded by the DNA claimed in this application. As described in Taniguchi et al. on page 4908, left column, lines 23-26 "the enzyme is distinct from the α -1-4-galctoosyltransferase which catalyses the formation of galbiaosylceramide ($\text{Gal}\alpha 1\text{-4Gal } \beta 1\text{-1Cer}$)". Thus, the enzyme described in Taniguchi et al. does not transfer a galactose residue to galactosylceramide (GalCer ; $\text{Gal}\beta 1\text{-1Cer}$). This is further shown in Table 2 found on page 4912 of Taniguchi, which indicates the transfer of a galactose residue from UDP-galactose to LacCer ($\text{Gal}\beta 1\text{-4Gal}\beta 1\text{-1Cer}$), but does not transfer to GalCer . In contrast, the enzyme encoded by the DNA of the present claims can transfer a galactose residue to LacCer AND to GalCer as described in the specification on page 27, lines 13-16 and shown in Figure 4b of the present application.

In view of the above, withdrawal of this ground of rejection is requested.

The objection to Claims 7-9 under 37 C.F.R. § 1.75(c) is obviated by amendment.

The objection to Claims 4-6 is obviated by amendment.

The rejection of Claims 4-6 under 35 U.S.C. § 101 is obviated by amendment.

The rejection of Claims 5 and 6 under 35 U.S.C. § 112, second paragraph is obviated by amendment.

The rejection of Claims 4-6 under 35 U.S.C. § 112, first paragraph (both written description and enablement) is obviated by amendment.

Applicants submit that the present application is now ready for allowance. Early notification of such allowance is kindly requested.

Respectfully submitted,

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IN THE CLAIMS

1-11. (Canceled).

12-35. (New).